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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/636,011	08/07/2003	John T. Buikema	0899-0048	1526

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EXAMINER	
LE, TOAN M	

ART UNIT	PAPER NUMBER
2863	

DATE MAILED: 06/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/636,011	BUIKEMA ET AL.	
	Examiner	Art Unit	
	Toan M. Le	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9 and 11-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9 and 11-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 October 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *6/9/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/9/06 has been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-9 and 11-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Dismukes et al. (Pub. No. 2004/0148047 A1).

Referring to claim 1, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract), comprising:

a web server (page 14, [0293]-[0295]);

means for gathering data relating to the efficiency of the production plant, the assembly line or the components of the assembly line (page 1, [0016], [0017], [0021]; page 2, [0027]);

means for communicating the gathered data with the web server (pages 14-15, [0293] to [0308]);

said data being selected from the group consisting of unit output values, downtime occurrences, downtime duration, downtime incident codes, downtime categorization, action items, minute ran, hours scheduled, capable rate, actual output, idle time, total time, waste analysis values, or combination thereof (page 7, [0120]; figures 2, 3A, 3B);

means for storing the gathered data at the web server (page 14, [0295]; page 15, [0301]);

means for calculating production efficiency based on the gathered data to provide calculated data (page 5, [0082], [0083], [0084], [0092]; page 21, claim 67);

means for communicating the gathered data and the calculated data within said system and communicating the gathered data and the calculated data to a remote location via the web server and over the Internet or an intranet (pages 14-15, [0291] to [0308]; page 15, [0301]); and

means for displaying the calculated data (figures 25 and 34).

As to claim 2, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) further comprising:

means for displaying the gathered data (figure 34).

Referring to claim 3, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) further comprising:

means for storing the calculated data within the system including a database associated with the web server (pages 14-15, [0293] to [0308]; page 15, [0301]).

As to claim 4, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) wherein said means for gathering data is circuitry that monitors the condition and operation of an assembly or a process line component or subcomponent (page 21, claim 69).

Referring to claim 5, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) wherein said circuitry used to monitor the condition and operation of an assembly or a process line component or subcomponent is a programmable logic controller (page 22, claims 85 and 99).

As to claim 6, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) wherein said means for gathering data is an input device capable of sending or receiving data selected from the group consisting of an electronic terminal, a personal computer, a computer, a data processor, a handheld data device, or combination thereof (page 22, claims 85 and 99).

Referring to claim 7, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) wherein said means for gathering data is an input device for sending or receiving data and which allows the operator to batch enter the data (page 2, [0024]; page 10, [0189]).

As to claim 8, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components

of that assembly or a process line (Abstract) wherein said means for calculating production efficiency is a data processor (page 21, claim 64).

Referring to claim 9, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) wherein said means for storing the gathered data is a database (page 14, [0295]; page 15, [0301]).

Referring to claim 11, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) wherein said means to display the gathered data and the calculated data includes a terminal, computer, handheld device, monitor or other humanly perceptible display (pages 14-15, [0293] to [0308]; figures 25 and 34).

As to claim 12, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) wherein said calculated data provides an efficiency report (page 14, [0300]).

Referring to claim 13, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract), comprising:

A web server (pages 14-15, [0293] to [0308]);

data circuitry to gather data relating to the efficiency of the production plant, the assembly line or the components of the assembly line (page 1, [0016], [0017], [0021]; page 2, [0027]; page 21, claim 64),

said gathered data being selected from the group consisting of unit output values, downtime occurrences, downtime duration, downtime incident codes, downtime categorization, action items, minute ran, hours scheduled, capable rate, actual output, idle time, total time, waste analysis values, or combination thereof (page 7, [0120]; figures 2, 3A, 3B);

a data processor for receiving the gathered data and for performing calculations with at least some of the gathered data to provide calculated data (page 5, [0082], [0083], [0084], [0092]; page 21, claims 64 and 67);

means to communicate the gathered data with data processor via the web server and over the Internet or an intranet (pages 14-15, [0291] to [0308]); and

a display in communication with the data processor to display the calculated data (figures 25 and 34).

As to claim 14, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) further comprising:

a database in communication with the data processor for receiving and storing the calculated data (page 14, [0295]; page 15, [0301]).

Referring to claim 15, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) wherein the calculated data provides an efficiency report (page 14, [0300]).

As to claim 16, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components

of that assembly or a process line (Abstract) wherein said data circuitry monitors the condition and operation of an assembly or process line component or subcomponent (page 21, claim 69).

Referring to claim 17, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) wherein said data circuitry is a programmable logic controller (page 22, claims 85 and 99).

As to claim 18, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) wherein

said data processor is an electronic terminal, a personal computer, a computer, a handheld computing device, or combinations thereof (page 22, claims 85 and 99).

Referring to claim 19, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) wherein said data circuitry is an input device which allows the operator to batch enter the gathered data (page 2, [0024]; page 10, [0189]).

As to claim 20, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) wherein said gathered data are communicated over the Internet or an intranet (pages 14-15, [0291] to [0308]; page 15, [0301]; page 21, claim 71).

Referring to claim 21, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) wherein said display for displaying the

gathered data or the calculated data is a part of a computer terminal, a personal computer, a handheld data device, or a monitor and the gathered data or the calculated data is communicated over the Internet or an intranet to the display (pages 14-15, [0293] to [0308]; page 22, claims 85 and 99).

As to claim 22, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) comprising:

an input layer to gather data relating to the efficiency of the production plant, the assembly line or the components of the assembly line (page 1, [0016], [0017], [0021]; page 2, [0027]),

said data being selected from the group consisting of unit output values, downtime occurrences, downtime duration, downtime incident codes, downtime categorization, action items, minute ran, hours scheduled, capable rate, actual output, idle time, total time, waste analysis values, or combination thereof (page 7, [0120]; figures 2, 3A, 3B);

a data processor layer to calculate the production efficiency based on the said data gathered by the input layer (page 5, [0082], [0083], [0084], [0092]; page 21, claim 67);

a storage layer for storing the data gathered by the input layer and for storing the data calculated by the data processing layer (page 14, [0295]; page 15, [0301]; page 21, claim 66);

a communication layer to communicate to a remote location via a web server and over the Internet or an intranet the data stored at the storage layer within the manufacturing monitoring system (pages 14-15, [0291] to [0308]; page 15, [0301]); and

a presentation layer to display the data stored at the storage layer (figures 25 and 34).

Referring to claim 23, Dismukes et al. disclose a manufacturing monitoring method for determining the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract); said method comprising the steps of:

gathering data related to the efficiency of the production plant, the assembly line or the components of the assembly line (page 1, [0016], [0017], [0021]; page 2, [0027]);

selecting said gathered data from the group consisting of unit output values, downtime occurrences, downtime duration, downtime incident codes, downtime categorization, action items, minutes ran, hours scheduled, capable rate, actual output, idle time, total time, waste analysis values, or combination thereof (page 7, [0120]; figures 2, 3A, 3B);

calculating a production efficiency based on the gathered data with a data processor (page 5, [0082], [0083], [0084], [0092]; page 18, claim 4);

storing the gathered data and the calculated data in a memory (page 14, [0295]; page 15, [0301]; page 18, claim 3);

communicating to a remote location by a web server and over the Internet or an intranet the gathered data and the calculated data to other computers, terminals, servers, or databases (pages 14-15, [0293] to [0308]; page 15, [0301]; page 18, claim 3); and

displaying the calculated data on a display (figures 25 and 34).

As to claim 24, Dismukes et al. disclose a manufacturing monitoring method for determining the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract), further comprising the additional step of: displaying the gathered data on a display (figures 25 and 34).

Referring to claim 25, Dismukes et al. disclose a manufacturing monitoring method for determining the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract), further comprising the additional step of:

communicating the calculated data over the Internet or an intranet (page 18, claim 8).

As to claim 26, Dismukes et al. disclose a manufacturing monitoring method for determining the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract), further comprising the additional step of:

communicating the gathered data over the Internet or an intranet (page 18, claim 8).

Referring to claim 27, Dismukes et al. disclose a manufacturing monitoring method for determining the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract), further comprising the additional step of:

storing the gathered data in a database (page 14, [0295]; page 15, [0301]).

As to claim 28, Dismukes et al. disclose a manufacturing monitoring method for determining the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract), further comprising the additional step of:

displaying the calculated data in a format viewable by a web-browser (figures 25 and 34).

Referring to claim 29, Dismukes et al. disclose a manufacturing monitoring method for determining the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract), wherein the step of calculating a production efficiency provides an efficiency report (page 14, [0300]).

As to claim 30, Dismukes et al. disclose a manufacturing monitoring method for determining the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract), further comprising the additional step of:

entering gathered data by batch entry into said system (page 2, [0024]; page 10, [0189]).

Referring to claim 31, Dismukes et al. disclose a manufacturing monitoring method for determining the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract), further comprising the additional step of:

communicating the calculated data over the Internet or an intranet (page 18, claim 8).

As to claim 32, Dismukes et al. disclose a manufacturing monitoring method for determining the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract), wherein

the step of gathering data related to the efficiency of the production plant, the assembly line or the components of the assembly line includes gathering data with a programmable logic controller (page 22, claims 85 and 99).

Referring to claim 33, Dismukes et al. disclose a manufacturing monitoring method for determining the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract), wherein

the step of gathering data related to the efficiency of the production plant, the assembly line or the components of the assembly line includes monitoring the condition or operation of an assembly or a process line component or subcomponent (page 19, claim 21).

Response to Arguments

Applicant's arguments filed 3/16/06 have been fully considered but they are not persuasive.

Referring to claims 1, 13, 22, and 23, Applicant argues that "Dismukes does not teach or suggest a manufacturing monitoring system having a web server that communicates gathered and calculated data to a remote location via the web server and over the Internet or an intranet."

Answer:

Dismukes discloses " Methodology for Automated Simulation Model Building for Rapid What-if Scenerio Analysis. [0291]" and

"The electronic flowcharting and productivity measurement tool (EFCPMT) provides a way to analyze an existing production facility (manufacturing system). When changes (introduction of new equipment, change of scheduling policy, etc.) are needed, it is desirable to evaluate the effect of these changes on productivity before they are actually implemented. This "what-if" scenario analysis is usually carried out through discrete event simulation, which allows a manufacturing company to implement the best changes, thus "do things right the first time. [0292]" and

"While there are a number of commercially available software tool for discrete event simulation, building a simulation model requires substantial experience and its time consuming. However, one aspect of the present invention provides a method to automatically build a simulation model from the electronic flowcharting and productivity measurement tool, based on the captured production data and the structure (connectivity) of the production facility. [0293]" and

"In another aspect, the dynamic simulation is then linked to market demand. To illustrate how this methodology works, the following example uses ARENA simulation software tool, developed by Rockwell Software Inc., to represent the simulation environment. However, the method can be generally applied to other simulation software tools [0294]." And "ARENA has the capability of import/export a simulation model from an external database such as Microsoft EXCEL and ACCESS. Each model database divides its model data into separate storage containers called tables (worksheets in EXCEL). These tables organize the data into columns

(called fields) and rows (called records). The model information that may be stored in a model database includes the following: Modules (including coordinate and data) from any panel; Submodels (including coordinates and properties); Connections between modules and submodels; Name views; Project parameters, replication parameters, and report parameters specified in Arena's Run Setup option [0295] to [0300]."

Furthermore, Takus et al. from "Arena Software Tutorial" disclose on page 543, section 10 Real-Time Control/Monitoring: "An extension to Arena (called Arena RT) is available for the purpose of using a simulation model to interact with external client application. This interaction is performed via an online messaging system. For example, the simulation model might contain aggregate-level system logic that sends tasks in real-time to a facility's shop floor control system. In this case, Arena's client might be a messaging queue that interfaces directly with PLCs. After completion of the operation (automated or manual), a message is sent back to the model so that the simulation can be updated and further instructions can be issued. During the execution of the model, the simulation and actual shop floor could operate concurrently. The animation could serve as a real-time monitoring device."

Thus, Dimukes does disclose means for communicating the gathered data and the calculated data (one aspect of the present invention provides a method to automatically build a simulation model from the electronic flowcharting and productivity measurement tool, based on the captured production data and the structure (connectivity) of the production facility) to a remote location via the web server and over the Internet or an intranet (by using ARENA software under ARENA RT such as an extension to ARENA RT is available for the purpose of using a simulation model to interact with external client application. The interaction is performed via an online messaging system. For example, the simulation model might contain

aggregate-level system logic that sends tasks in real-time to a facility's shop floor control system.)

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

"Arena Software Tutorial", Takus et al., Proceedings of the 1997 Winter Simulation Conference, Pages 541-544

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan M. Le whose telephone number is (571) 272-2276. The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Toan Le

June 16, 2006

BRYAN BUI
PRIMARY EXAMINER